

3. With respect to the Examiner's second and third rejections, the specification and claims 1-12, respectively, are objected to under 35 U.S.C. § 112, first paragraph, as failing to provide an enabling disclosure. The applicants have amended the claims to overcome the 35 U.S.C. § 112, first paragraph rejection.

4. With respect to the Examiner's fourth rejection, claims 6 and 9 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The applicants have amended claims 6 and 9 to overcome the 35 U.S.C. § 112, second paragraph rejection. Support for the amendment to claims 6 and 9 is shown on page 9 lines 28-32:

The infrastructure (101) may also send a channel access level (311) in order to set a threshold for the system or set thresholds on particular channels (109). This value allows the infrastructure to set a minimum value for the priority of a terminal that is allowed to access the channel regardless of other circumstances.

5. With respect to the Examiner's fifth rejection, claims 1, 7 and 8 are rejected under 35 U.S.C. § 102(e) as being anticipated by Kuddes et al. (United States Patent 5,353,287). The Kuddes reference teaches away from the invention claimed in the present application as seen in column 3 lines 43-51:

[The system described in Kuddes has a] control unit 10 which differentiates between high, intermediate, and low priority messages. A control unit 10 with a high priority message to send on bus 12, ignores any incoming carrier sense signal and sends the message regardless of whether a prior transmission from another control unit 10 is on the bus 12. Thus, the high priority message receives immediate bus access; it need not wait for a prior message to finish transmission.

As shown in column 7 lines 36-41:

Step 334 is entering a CS-ignore mode, in which the CS signal to controller 15 is disabled, ignored, or otherwise made ineffective. This provides the high priority message with immediate bus access, regardless of whether a message from another network station is currently being transmitted.

Further in column 7 lines 49-54:

Step 336 is sending the high priority message. This transmission is "blind" in the sense that, because the CS signal is disabled, control unit 10 does not know if another station is transmitting. If a message is already being transmitted from another station, the result is a forced collision.

If a collision occurs between messages, all control units involved enter a backoff process (see column 6 lines 62-64). "After a certain amount of time, which includes a backoff period, each control unit 10 attempts a re-transmission." column 3 lines 54-56. As noted by the Examiner, the system described in Kuddes varies its backoff time for channel access depending on station priority. "The duration of the backoff period is greater for low priority messages, so that the high priority message gains faster access to bus 12." column 3 lines 56-58. Thus, "the backoff periods for high and low priority messages are calculated in a manner that permits the high priority message to regain bus 12 first." column 7 lines 57-60.

Further, as noted by the Examiner, the time can vary depending on the number of tries. See column 8 lines 19-21.

Counter 25 counts the number of times, if any, that a high priority message is transmitted while the CS signal is being ignored. column 6 lines 11-13. Thus, after its CS-ignore limit is reached, a high priority message no longer ignores the CS signal, and is thus a "CS-sensitive" message.

In the invention claimed in the present application, each user is given an access priority value.

...step 305 ascertains a random time, responsive to the access priority value, and tests whether the channel is available when the random time has expired at step 323. This is tested by checking the channel status or busy/idle bit 215. If the channel is busy then step 325 waits for a random time corresponding to the access priority value or specifically the range of the random timer from step 321.

After expiration of this random time the method again checks or rechecks for a channel busy at step 323. Eventually the channel will be idle or available and then step 307 executes a channel access attempt after which the method ends or repeats ... Generally, a higher priority terminal practicing this method will have a higher probability of successfully accessing the channel than a lower priority terminal simply because the higher priority terminal looks more often to determine whether the channel is busy and is therefore more likely to find it idle.

As shown, the system described in Kuddes teaches away from the invention claimed in the present application. The system described in Kuddes contemplates a retry mechanism, whereas the invention claimed in the present application relates to an initial channel access.

A further distinction noted above is that the system described in Kuddes allows all high priority messages to gain access to bus 12, regardless if bus 12 is active. The invention claimed in the present application attempts to gain access to the bus equally among messages sent from high priority user and low priority users. The only time the invention claimed in the present application distinguishes between high and low priority users is when the channel is busy. In the situation when the channel is busy, high priority users test the channel more often than low priority user to see if the channel is still busy or has become idle.

Thus, the system described in Kuddes teaches away from the invention claimed in the present application. The system described in Kuddes distinguishes between users based on their priority level at all times, whereas the invention claimed in the present application only distinguishes between users based on their priority level when the channel is busy.

The system described by Kuddes attempts to vary a backoff time to determine how often a user can retry sending its message over bus 12 once a collision has occurred. The invention claimed in the present application varies a time to determine how often a user tests to see if the channel has become idle.

7. In summary, for the foregoing reasons, reconsideration is respectfully requested and allowance of the claims is earnestly solicited.

In the event that the Examiner has any questions regarding this amendment in particular or this application in general, he is urged to contact the Applicant's undersigned representative at the below-listed telephone number.

Respectfully submitted,

Reardon et al.

By: 

J. Ray Wood

Attorney for Applicant

Registration No.: 36,062

Assisted by: Terri S. Hughes

Telephone No.: 847-576 0520

Facsimile No.: 847-576 3750